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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/821,839 | 04/12/2004 | Andreas Hamburger | 321.43752X00 | 1757 |
| 20457 | 7590 | 10/19/2005 | EXAMINER | |
| ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873 | | | FASTOVSKY, LEONID M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3742 | |

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,839

Applicant(s)

HAMBURGER ET AL.

Examiner

Leonid M. Fastovsky

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-5, 10,13 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Tadokoro.

Tadokoro teaches a heating device comprising at least two plate-like ceramic heating elements 2 (Fig.2), which are electrically contacted on opposite flat sides by power supply terminals 9 and 10, and on at least one flat side is provided at least one flat electrical conductor 22, wherein on another flat side of the heating elements there are at least two further flat electrical conductors 23 and 24 for the heating element 2, which are electrically insulated against one another by air gap between them and also by an insulating plate 12, each of the further flat electrical conductors 23 and 24 being in contact with the another flat side of at least one heating element 2.

As to claims 3 and 16, at least one of the at least two conductors 4a and 4b is in indirect contact with the heating element 2.

As to claims 4- 5 and 17-18, at least one of the two conductors 4c is in contact with an electrically conductor- spacer 23 and conductive plate 22.

As to claim 10, the at least two further flat electrical conductors 23 and 24 are contacted by terminals 9 and 10 solely from one left front side of the casing 6 (Fig. 2).

As to claim 13, Tadokoro has the casing 6 that is inherently in electrical contact with the heating element 2 through a side flat wall of the casing 6.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prager et al.

Prager teaches a heating device comprising at least two plate-like ceramic heating elements 2a and 2b, which are electrically contacted on opposite flat sides by electrical connections, and on at least one flat side is provided at least one electrical conductor 4, wherein on another flat side of the heating elements there are at least two further electrical conductors 5 (Fig. 1a, col. 3, lines 25-27) which are electrically insulated against one another by a silicone rubber 3, each of the further flat electrical conductors 5 being in direct contact with the another flat side of at least one heating element. As for claim 9, at least one electrical conductor 5 has an area offset to at least one heating element 2a.

As for claim 10, the at least two further electrical conductors 4 are contacted solely from one left front side of the casing.

However, Prager does not teach a flat electrical conductor. It would have been obvious to one having ordinary skill in the art to modify Prager's invention to include flat electrical conductors in order to secure better electrical contacts with the heating elements.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadokoro in view of Nanerth.

Tadokoro teaches substantially the claimed invention, but does not teach that a conductor and a contact plate being held by an insulating frame. Nanerth teaches heating elements 1 having conductors 3 and contact plates 4 being held by an insulating frame 12. It would have been obvious to one having ordinary skill in the art to modify Tadokoro's invention to include an insulating frame in order to hold a resistive heating element as taught by Nanerth (col. 4, lines 40-50).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tadokoro in view of Bokestal.

Tadokoro discloses substantially the claimed invention, but does not disclose conductors and spacer surrounded by injection-molded frame. Bokestal discloses a heating element comprising conductors 7,8 and spacers 3,4 that are encased in a molded insulating frame 6 (col. 2, lines 44-54). It would have been obvious to one having ordinary skill in the art to modify Tadokoro's invention to use a molded insulating frame

as taught Bokestal to encase at least one of the spacers in order to protect the heating element from being damaged.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tadokoro in view of Bokestal.

Tadokoro in view of Bokestal disclose substantially the claimed invention except a method for the manufacture of a heating device. It would have been obvious to one having ordinary skill in the art to modify the invention of Tadokoro in view of Bokestal to use a method for the manufacture the heating device because they teach all structure elements of the invention and are capable of so perform.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tadokoro. Tadokoro discloses substantially the claimed invention including two flat conductors 4a and 4b insulated from each other, but does not teach an insulating spacer located between them. It would have been obvious to one having ordinary skill in the art to modify Tadokoro's invention to include an insulating spacer between the two conductors as a matter of a design choice since the conductors are already insulated from each other and adding additional insulating spacer is within the skill of the art. In re Dailey, 357 F. 2d 669, 149 USPQ 47 (CCPA).

Allowable Subject Matter

9. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection. Further, none of the claims requires the electrical contact **only** with one of the heating elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 571-272-4778. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leonid M Fastovsky
Leonid M Fastovsky
Examiner
Art Unit 3742

lmf

10/6/05
Robin D. Evans
ROBIN D. EVANS
EXAMINER
10/14/05